MAURITIUS CANE INDUSTRY AUTHORITY

MAURITIUS SUGARCANE INDUSTRY RESEARCH INSTITUTE

Ref A 1/2020 17 March 2020

SUGAR CANE CROP 2020

Status: End February 2020

1. CLIMATE

1.1 Rainfall (Tables 1a and 1b, Figure 1)

The island's average rainfall for the month of February 2020 was 296 mm over the sugar cane areas representing a deficit of 20% of the normal (371 mm). Rainfall recorded in all sectors was below the long-term mean (LTM) with 206 mm in the North, 319 mm in the East, 383 mm in the South, 91 mm in the West and 332 mm in the Centre. These amounts represented 84%, 75%, 87%, 42% and 79% of the respective long-term mean of the sector.

Rainfall for the period October 2019 to February 2020 cumulated to 818 mm in the North, 1208 mm in the East, 1348 mm in the South, 541 mm in the West and 1408 mm in the Centre. These cumulated rainfalls represented 130%, 103%, 106%, 101% and 127% of the respective long-term mean. The island average of 1127 mm for this period represented 110% of the long-term mean (1022 mm).

Table 1a. Rainfall (mm) for the month of February for crops 2019, 2020 and the long term mean (LTM)

	North	East	South	West	Centre	Island
2019	157 *(64)*	269 *(63)*	257 *(59)*	168 *(77)*	301 *(72)*	234 *(63)*
2020	**206** *(84)**	**319** *(75)*	**383** *(87)*	**91** *(42)*	**332** *(79)*	**296** *(80)*
LTM	245	426	439	218	420	371

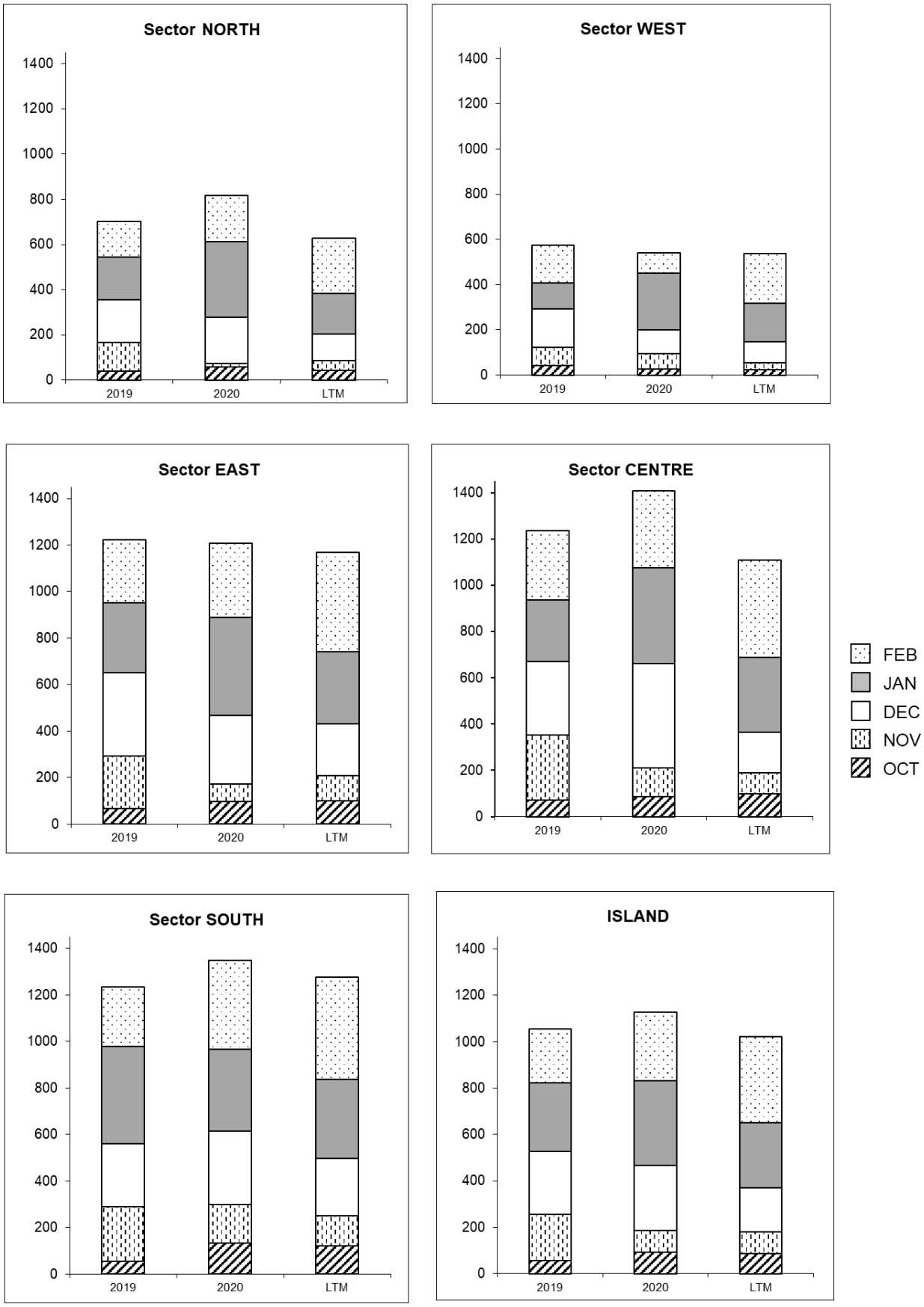
* figures in brackets are % of LTM (1981-10)

Table 1b. Cumulative rainfall (mm) from October 2019 to February 2020 for crop 2020 compared to that of crop 2019 and the LTM

	North	East	South	West	Centre	Island
2019	701 *(112)*	1222 *(105)*	1234 *(97)*	575 *(107)*	1237 *(112)*	1055 *(103)*
2020	**818** *(130)**	**1208** *(103)*	**1348** *(106)*	**541** *(101)*	**1408** *(127)*	**1127** *(110)*
LTM	628	1168	1276	536	1108	1022

* figures in brackets are % of LTM ***[Source: raw provisional data from Meteorological Services]***

Figure 1. Monthly rainfall (mm) for the period October 2019 to February 2020 for the 2020 crop compared to the corresponding period of the 2019 crop and to the long term mean (LTM).



1.2 Air temperature and sunshine duration (Table 2)

Data on maximum and minimum temperatures together with sunshine duration recorded in February 2020 at the four MSIRI agro-meteorological stations are given below.

Table 2. Air temperature and sunshine duration recorded on MSIRI agro-meteorological stations in February 2020

Stations	Maximum (°C)		Minimum (°C)		Sunshine hours	
	Feb 2020	DevN*	Feb 2020	DevN	Feb 2020	% Normal
Ferret	31.0	+0.1	22.9	+0.4	252	118
Réduit	27.6	-0.6	21.4	-0.5	229	111
Belle Rive	27.5	+0.1	20.0	+0.6	218	132
Union Park	28.0	+0.6	21.5	+0.5	184	120

* Deviation from the Normal (1981-2010)

The maximum temperature recorded during February 2020 was comparable to the normal at Ferret and Belle Rive, above normal at Union Park by 0.6°C but was lagging behind the normal at Réduit by 0.6°C. Minimum temperature exceeded the normal at Ferret, Belle Rive and Union Park but was below normal at Réduit. Sunshine duration during February 2020 was well above normal at all stations. The recorded bright sunshine, as a percentage of the normal was 118% at Ferret, 111% at Réduit, 132% at Belle Rive and 120% at Union Park. The above normal air temperature and solar radiation recorded during February 2020 at most stations were conducive to crop growth.

2. STALK HEIGHT

Stalk height were initially measured during the last week of February 2020 at 48 sites in the five sugar cane sectors of the island. These selected sites are representative of the various agro-climatic zones, varieties and crop categories. The measurements were compared to those of the corresponding period in February 2019 and to the normal referred as the mean of the five best cane yielding crops during the period 2010 to 2019.

2.1 Stalk elongation (Table 3a)

Stalk elongation during the month of February 2020 was inferior to that of the same period in 2019 and also to that of the normal in all sectors. Growth during the month of February 2020 amounted to 35.8 cm in the North, 38.2 cm in the East, 42.6 cm in the South, 27.6 cm in the West and 31.2 cm in the Centre. For the same period, growth was below normal by 10.2 cm in the North, 4.8 cm in the East, 5.5 cm in the South, 19.8 cm in the West and 5.1 cm in the Centre. The 37.3 cm average for the island represented 76.5% of elongation recorded in February 2019 (48.8 cm) and 83.2% of the normal (44.9 cm).

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Table 3a. Stalk elongation during the month of February 2020

	Stalk elongation (cm) during February			February 2020 as % of	
Sectors	**2020**	**2019**	**Normal**	**2019**	**Normal**
North	35.8	50.9	46.0	70.3	77.9
East	38.2	45.5	43.0	84.0	88.9
South	42.6	53.6	48.1	79.5	88.6
West	27.6	51.0	47.4	54.1	58.2
Centre	31.2	32.6	36.3	95.7	85.9
Island	**37.3**	**48.8**	**44.9**	**76.5**	**83.2**

2.2 Cumulative Elongation (Table 3b)

Cumulative stalk growth from end-December 2019 to end-February 2020 reached 84.7 cm in the North, 87.4 cm in the East, 87.5 cm in the South, 73.0 cm in the West and 71.2 cm in the Centre. These cumulative growths compared to the same period last year were lower by 21.5 cm North, 17.0 cm in the East, 5.9 cm in the South and 21.0 cm in the West whereas in the Centre it was comparable. For the same period, cumulative growth exceeded the normal in the North by 4.2 cm, the South by 2.0 cm and the Centre by 4.3 cm but was comparable to the normal in the East and lagged behind the normal in the West by 19.3 cm. Island-wise the cumulative elongation of 84.2 cm in February 2020 was lower than that of the 2019 crop (98.1 cm) by 14.2% but was similar to that of the normal.

Table 3b. Cumulative elongation at end-February 2020

	Cumulative elongation (cm) at end- February			End-February 2020 as % of	
Sectors	**2020**	**2019**	**Normal**	**2020**	**Normal**
North	84.7	106.2	80.5	79.8	105.3
East	87.4	104.4	88.1	83.7	99.2
South	87.5	93.4	85.5	93.7	102.3
West	73.0	94.0	92.3	77.7	79.1
Centre	71.2	70.7	66.9	100.7	106.5
Island	**84.2**	**98.1**	**84.2**	**85.8**	**99.9**

3.2 Total stalk height (Table 3c and Figure 2)

Total stalk height at end February 2020 was 124.5 cm in the North, 127.8 cm in the East, 120.8 cm in the South, 112.9 cm in the West and 115.0 in the Centre. Compared to end-February 2019, stalk height to-date was higher in the Centre by 8.7 cm but lagged behind in the other sectors by 17.3 cm in the North, 17.0 cm in the East, 1.5 cm in the South and 23.2 cm in the West. Total stalk height at end-February 2020 was above normal by 19.1 cm in the North and 5.4 cm in the Centre but lagged behind in the other sectors by 7.8 cm in the East, 2.6 cm in the South and 16.8 cm in the West.

At island level, the total stalk height of 122.5 cm at end of February 2020 was comparable to that of the normal but was lower than that of the corresponding period in 2019 by 11.4 cm (8.5%).

Table 3c. Stalk height at end-February 2020

	Stalk height (cm) at end-February			**End-February 2020 as % of**	
Sectors	**2020**	**2019**	**Normal**	**2019**	**Normal**
North	124.5	141.8	105.4	87.8	118.1
East	127.8	144.8	135.6	88.3	94.3
South	120.8	122.3	123.4	98.8	97.9
West	112.9	136.1	129.7	83.0	87.0
Centre	115.0	106.3	109.6	108.2	104.9
Island	**122.5**	**133.9**	**123.2**	**91.5**	**99.4**

3. CROP 2020

Although air temperature and solar radiation recorded during February 2020 was above normal, the amount of rainfall recorded was below normal in all sectors with the least amount recorded in sectors North and East. Beneficial effects of higher temperatures and solar radiation can only be realised when there is sufficient soil moisture. This is clearly seen from the elongation data recorded in February 2020 which lagged behind those of 2019 and the normal in all sectors. The effect was more severe in the West sector with just above 58% of normal growth. This is attributed to the below normal rainfall recorded and also in the delay in completing the harvest of crop 2019. Nevertheless, the crop could compensate for the deficit in growth provided that favourable climatic conditions prevail until the end of the growth season.

Figure 2. Stalk height at end- February 2020